

ABSTRACT

RFID technology can be applied to the presence and security systems. Certain laboratories need an access system that not only uses physical keys but also includes virtual keys that can be controlled by the operator.

In this final project, a door lock that use RFID and connect to a database was designed and implemented; so that the operator can control the parties who can access the door lock. By utilizing RFID technology, special doors integrated with RFID readers and also on databases become a solution for laboratory security, with the tapping success rate of 92% at a distance of 1,5 cm, and the tapping authentication time 0,61-1,40 second.

Keywords: *Radio Frequency Identification (RFID), Arduino*